

I/WE CLAIM:

1. A method of completing a call connection over the public switched telephone network (PSTN) from a desktop application residing on a computer workstation, said method comprising:
- a) accepting call request information input by a user using an interface provided by the desktop application;
 - b) formulating a call connection request message based on said information accepted from said user; and
 - c) forwarding the call connection request message over a connection established between the desktop application and a long distance service provider server to effect call completion.
- > Telephone service
2. The method as claimed in claim 1, wherein formulating a call connection request message is initiated when the user enables an application feature available on said interface.
3. The method as claimed in claim 1, wherein inputting call request information includes selecting call station information from a directory stored on said workstation.
4. The method as claimed in claim 2, wherein said application feature prompts the desktop application to retrieve predetermined call station information and forward said call connection request message.

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5.0 The method as claimed in claim 1, wherein forwarding the call connection request message includes a step of determining whether a packet network connection is available to the workstation and, if the packet network connection is not available, establishing the packet network connection prior to sending the request.

6. The method as claimed in claim 3, wherein said call station information is stored in said directory in association with a call party name.

7.0 The method as claimed in claim 5, wherein said connection established between said user workstation and said long distance service provider server includes the packet network connection and a server-specific communication connection.

8.0 The method as claimed in claim 7, wherein said server-specific communication connection uses Distributed Component Object Model (DCOM) protocol.

9.0 The method as claimed in claim 7, further comprising a step of releasing at least the server-specific connection between said long distance service provider server and said desktop application when a call status message indicating that the call request is being processed, is received from said long distance service provider server.

10.0 The method as claimed in claim 9, further comprising a step of releasing the packet network connection if it is determined that the packet network connection was established by said desktop application.

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11.0 The method as claimed in claim 5, wherein forwarding the call connection request message includes a step of forwarding a first message containing user identification information.

12.6 The method as claimed in claim 11, further comprising steps of:

- a) receiving a confirmation message from said long distance service provider server confirming said user identification information; and
- b) forwarding a call request message containing call station information.

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13. A method of completing a call connection over the public switched telephone network (PSTN) from a desktop application operating locally on a computer workstation having a communication connection with a long distance service provider server, said method comprising steps of:

- a) receiving a call connection request message at said long distance service provider server, sent from said desktop application;
- b) verifying user identification information contained in said message;
- c) processing said call connection request message to enable a call connection based on call station information contained in said message; and
- d) sending a notification message to the desktop application, to notify the desktop application that said call connection is in progress.

14. The method as claimed in claim 13, wherein the step of processing said call connection request message further comprises steps of:

- a) formulating a call request packet based on said call station information; and
- b) forwarding said call request packet to a call controller connected to a time division multiplexed (TDM) switch, for effecting a call connection between call stations identified in said call connection request message.

15. A method of completing a call connection as claimed in claim 13, wherein said step of receiving a call connection request message further comprises steps of:

- a) receiving a first message from said desktop application containing user identification information;
- b) sending a confirmation message to said desktop application authorizing said user identification information; and
- c) receiving a second message from said desktop application containing call station information identifying call station locations to be joined by a call connection.

16. A system for establishing a long distance call connection between call stations over the PSTN, said system comprising:

- a) a long distance service provider (LDSP) server adapted to establish a call connection between at least two call stations in response to a call

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connection request message sent from a registered user;

- b) a desktop application adapted to operate locally on a user workstation to accept input from said registered user defining parameters for establishing said call connection, and communicate said parameters to said long distance service provider server in the form of a call connection request message; and
- c) a call controller adapted to receive a call connection information packet from said LDSP server, based on said call connection request message and instruct a time division multiplexed (TDM) switch to establish a call connection between said at least two call stations.

17. The system as claimed in claim 16, wherein said desktop application includes means for establishing a communication connection with said LDSP server for communicating said call connection request message.

18. The system as claimed in claim 17, wherein said means for establishing a communication connection includes means for determining if an existing packet network connection is available, and if not, establishing a packet network connection.

19. The system as claimed in claim 18, wherein said means for establishing a communication connection further comprises means for establishing a communication connection compatible with said LDSP server.

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20. The system as claimed in claim 19, wherein said communication connection is established using a Distributed Component Object Model (DCOM) protocols.

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21. The system as claimed in claim 16, wherein said desktop application supports a call station directory. ✓

22. The system as claimed in claim 16, wherein said desktop application supports a programmable speed dial feature.

23. The system as claimed in claim 16, wherein said desktop application further includes means for closing said packet network and communication connections when a message notifying that the call connection is in progress is received from said LDSP server.

24. The system as claimed in claim 16, wherein said desktop application further comprises means for encrypting call connection request messages.

25. The system as claimed in claim 16, wherein said LDSP server further comprises of a transaction component, a call connection component and a web server component.

26. The system as claimed in claim 25, wherein said transaction component further comprises:

- a) means for receiving a call connection request message from said desktop application;
- b) means for decrypting said call connection request message; and

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c) means for formatting said call connection request message for processing by said call connection component.

27. The system as claimed in claim 16, wherein said desktop application further comprises:

a) means for enabling call connection features on the LDSP web server.

28. The system as claimed in claim 27, wherein said means for enabling call connection features includes enabling a web browser application on said user workstation.

29. The system as claimed in claim 16, wherein said LDSP server further comprises a user database.

30. The system as claimed in claim 29, wherein said user database stores user directory files.

31. The system as claimed in claim 30, further including means for synchronizing directory files residing on the user workstation with directory files associated with the LDSP.

32. The system as claimed in claim 30, wherein when said user directory files are updated using a web browser application, a corresponding update to directory files residing on the user workstation is automatically performed when a communication connection with said LDSP server is established from said desktop application.

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33. The system as claimed in claim 29, wherein said user database stores user account information.
- ~~34.~~ A desktop application adapted to operate locally on a user workstation and establish a communication connection with a long distance service provider (LDSP) server comprising:
- a) means for accepting call connection information input by a user;
 - b) means for formulating a call connection request message based on said call connection information;
 - c) means for determining if an existing packet network connection is available;
 - d) means for establishing a packet network connection if an existing packet network connection is not available to support said communication connection; and
 - e) means for sending said call connection request message to said LDSP server.
35. A desktop application as claimed in claim 34, wherein said means for receiving call connection information is a graphical user interface.
36. A desktop application as claimed in claim 34, wherein said means for sending said call connection request message further comprises means for sending user identification information to said LDSP server for verification.

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37. A desktop application as claimed in claim 34, further comprising means for closing said communication connection after a call connection is initiated.
38. A computer-readable memory storing the desktop application as claimed in claim 34.
39. A desktop application as claimed in claim 34 further comprising:
 - a) means for updating a call directory supported by said desktop application; and
 - b) means for effecting a corresponding update to a user directory supported by said LDSP server.

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